

ABSTRACT

A slot machine comprises a central processing unit (CPU) and a reel mechanism. The CPU operates the slot machine and randomly determines a game outcome in response to a wager. The reel mechanism includes a motor, a symbol-bearing reel, and a reel driver. The motor includes a rotatable shaft, and the reel is mounted to the shaft. The reel driver includes a local microcontroller distinct from and coupled to the CPU. The reel driver is coupled to the motor to cause the motor to rotate the reel. The CPU issues high-level commands to the reel driver related to rotation of the reel. The high-level commands may, for example, include a start spin command for starting rotation of the reel and a stop command for stopping the reel at a specified position. However, to free up the CPU for other tasks, the local microcontroller performs low-level reel driver operations related to the rotation of the reel. The low-level reel driver operations may, for example, include sampling a state of the reel in real time, performing calculations, and responding with control changes.